

Message Text

LIMITED OFFICIAL USE POSS DUPE

PAGE 01 WARSAW 00216 01 OF 04 140811Z

14

ACTION ERDA-07

INFO OCT-01 EUR-12 ISO-00 FEA-01 AID-05 CEA-01 CIAE-00

CIEP-01 COME-00 DODE-00 EB-07 FPC-01 H-02 INR-07

INT-05 L-03 NSAE-00 NSC-05 OMB-01 PM-04 USIA-06

SAM-01 OES-03 SP-02 SS-15 STR-04 TRSE-00 CEQ-01 EPA-01

SAJ-01 AGR-05 DOTE-00 SIL-01 LAB-04 IO-11 NSF-01

NRC-05 /124 W

----- 088709

R 140720Z JAN 76

FM AMEMBASSY WARSAW

TO SECSTATE WASHDC 9297

INFO AMEMBASSY MOSCOW

AMEMBASSY PRAGUE

AMEMBASSY BUCHAREST

AMEMBASSY BELGRADE

LIMITED OFFICIAL USE SECTION 1 OF 4 WARSAW 0216

E.O. 11652: N/A

TAGS: TECH

SUBJECT: POLISH ENERGY PRIORITIES AND PROGRAMS

REF STATE 289786

1. THE FOLLOWING IS RESPONSE TO THE REQUEST BY THE ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION FOR BACKGROUND INFORMATION ON POLISH ENERGY PRIORITIES AND PROGRAMS, THIS REPORT WILL BE SUPPLEMENTED AS FURTHER INFORMATION BECOMES AVAILABLE ON POLAND'S RAPIDLY-CHANGING ENERGY SITUATION.

A. ENERGY POLICY AND TRENDS - POLAND HAS MANAGED TO WEATHER THE ENERGY CRISIS IN RELATIVELY GOOD CONDITION, 70 PERCENT OF THE CURRENT NATIONAL-ENERGY REQUIREMENT IS COVERED BY
LIMITED OFFICIAL USE
LIMITED OFFICIAL USE

PAGE 02 WARSAW 00216 01 OF 04 140811Z

DOMESTICALLY-PRODUCED COAL, OF WHICH THERE ARE AN ESTIMATED 150 BILLION TONS OF HIGH-QUALITY BITUMINOUS IN RESERVE.

HOWEVER, DESPITE CONTINUED INTENSIVE DEVELOPMENT OF THE COAL INDUSTRY, ENERGY PLANNERS FORESEE THAT THE REQUIREMENTS FOR MODERNIZATION OF INDUSTRY AND AGRICULTURE, COMBINED WITH TRANSPORT, ENVIRONMENTAL, AND LABOR LIMITATION, WILL RAPIDLY REDUCE POLAND'S EXTRAORDINARILY HIGH RELIANCE ON COAL AS A PRIME ENERGY SOURCE. LONG-RANGE PLANS CALL FOR THE TRIPLING OF OVERALL ENERGY USE BY THE YEAR 2000, A FIVE-FOLD INCREASE IN ELECTRIC-POWER GENERATION, AND A SEVEN-FOLD INCREASE IN LIQUID AND GAS FUELS. DURING THE SAME PERIOD, COAL PRODUCTION IS ONLY EXPECTED TO DOUBLE.

WITH RELATIVELY LITTLE PETROLEUM, HYDRO-POWER, AND NATURAL GAS RESOURCES, A CRUCIAL AND DIFFICULT QUESTION FOR ENERGY PLANNERS IS HOW TO ENSURE THAT RAPIDLY EXPANDING NEED FOR NEW ENERGY SOURCES ARE MET WITHOUT INCURRING PROHIBITIVE FOREIGN-CURRENCY COSTS. IN HIS SOCIO-ECONOMIC DEVELOPMENT REPORT TO THE SEVENTH CONGRESS OF THE PZPR LAST MONTH, PRIME MINISTER JAROSZEWICZ SOUNDED THE FOLLOWING WARNING:

"IMMENSE TASKS ARE BEING SET FOR THE POWER INDUSTRY WHICH MUST EXPAND CONSIDERABLY ITS TOTAL CAPACITY AND POWER OUTPUT ... WE MUST ENFORCE WITH GREATER STRINGENCY THE RATIONAL AND ECONOMIC USE OF FUEL AND POWER IN THE ECONOMY AS A WHOLE, NOTING THAT FUEL AND POWER CONSUMPTION HAS BEEN INCREASING FASTER THAN THE POSSIBILITY OF OUTPUT OR IMPORT EXPANSION."

IN A LATER PORTION OF THIS SPEECH, JAROSZEWICZ ANNOUNCED SUBSTANTIAL INCREASES IN R&D SPENDING IN THE NEW FIVE-YEAR PLAN (1976-1980) FOR EFFECTIVE UTILIZATION OF FUELS, COAL-PROCESSING, AND NUCLEAR-ENERGY APPLICATIONS. WHILE THE DETAILS ARE STILL SKETCHY, THE EMERGING POLICY THAT WILL CONDITION THE POLISH ENERGY PROGRAM FOR THE REMAINDER OF THE CENTURY SHOULD INCLUDE:

(1) EXPANSION OF COAL PRODUCTION AND MORE EFFICIENT USE OF THIS RESOURCE.

LIMITED OFFICIAL USE
LIMITED OFFICIAL USE

PAGE 03 WARSAW 00216 01 OF 04 140811Z

- (2) RAPID DEVELOPMENT OF INDUSTRIAL-SCALE COAL-GASIFICATION AND LIQUEFACTION PLANTS.
- (3) INCREASING RELIANCE ON NUCLEAR ENERGY FOR ELECTRIC POWER BEGINNING IN THE 1980'S.
- (4) ENERGY-CONSERVATION MEASURES, INCLUDING A SHIFT TO LESS ENERGY-INTENSIVE INDUSTRIES.

B. ENERGY INDEPENDENCE NOT FORESEEN - WHILE POLAND HAS ACHIEVED FOURTH PLACE IN THE WORLD COAL-EXPORT MARKET, AND HAS SUBSTANTIALLY BENEFITED FROM INCREASED COAL PRICES, EXPERTS

HER POINT OUT THAT POLAND IS ALREADY AN ENERGY-DEFICIENT COUNTRY IN FOREIGN-CURRENCY TERMS IF THE COST OF IMPORTED POWER EQUIPMENT AND SERVICES IS TAKEN INTO ACCOUNT. BARRING A MAJOR TECHNOLOGICAL BREAKTHROUGH IN IN-SITU COAL GASIFICATION, POLAND WILL REQUIRE ENERGY IMPORTS THROUGH THE END OF THE CENTURY. THE NATION IS HEAVILY DEPENDENT ON THE SOVIET UNION FOR PETROLEUM AND NATURAL GAS, HAVING PURCHASED 50 MILLION TONS OF CRUDE DURING THE PREVIOUS FIVE-YEAR PERIOD AND SIGNED CONTRACTS FOR 12 MILLION TONS OF CRUDE IN 1976. TO ENSURE SUPPLIES OF SOVIET NATURAL GAS, POLAND IS PARTICIPATING SUBSTANTIALLY IN THE ORENBURG AND POLOLSK GAS-PIPELINE PROJECTS. HOWEVER, UNDER CONTINUING PRESSURE FROM THE SOVIETS TO DEVELOP OTHER SOURCES OF SUPPLY, POLAND HAS EXPANDED CONSIDERABLY PURCHASE OF MIDDLE EAST CRUDE AS WELL. THE GDANSK REFINERY, OPENED IN LATE 1975, IS NOW REPORTED AS PROCESSING 8,000 TONS OF MIDDLE EAST CRUDE DAILY, WITH AN EVENTUAL CAPACITY OF THREE MILLION TONS PER YEAR. IN THE LONGER RANGE, POLAND HOPES THAT NUCLEAR POWER WILL REDUCE REQUIREMENTS FOR LIQUID AND GAS FUEL IMPORTS (PLANS CALL FOR 35,000 MWH OF NUCLEAR-GENERATING CAPACITY BY THE YEAR 2000). THE ENRICHED FUEL FOR THESE PLANTS IS EXPECTED TO BE SUPPLIED BY THE SOVIETS, THEREBY SHIFTING, BUT NOT ELIMINATING, POLAND'S RELIANCE ON THE SOVIET UNION FOR ENERGY IMPORTS.

C. GOVERNMENT STRUCTURE - ENERGY PROGRAMS AND RELATED R&D ACTIVITIES (EXCEPT FOR NUCLEAR POWER) ARE CENTRALIZED IN THE MINISTRY OF MINING AND POWER. THIS MINISTRY IS

LIMITED OFFICIAL USE

NNN

LIMITED OFFICIAL USE

PAGE 01 WARSAW 00216 02 OF 04 140856Z

14

ACTION ERDA-07

INFO OCT-01 EUR-12 ISO-00 FEA-01 AID-05 CEA-01 CIAE-00

CIEP-01 COME-00 DODE-00 EB-07 FPC-01 H-02 INR-07

INT-05 L-03 NSAE-00 NSC-05 OMB-01 PM-04 USIA-06

SAM-01 OES-03 SP-02 SS-15 STR-04 TRSE-00 CEQ-01 EPA-01

SAJ-01 AGR-05 DOTE-00 SIL-01 LAB-04 IO-11 NSF-01

NRC-05 /124 W

----- 089114

R 140720Z JAN 76

FM AMEMBASSY WARSAW
TO SECSTATE WASHDC 9298
INFO AMEMBASSY MOSCOW
AMEMBASSY PRAGUE
AMEMBASSY BUCHAREST
AMEMBASSY BELGRADE

LIMITED OFFICIAL USE SECTION 2 OF 4 WARSAW 0216

RESPONSIBLE FOR THE EXPLOITATION OF ENERGY SOURCES AND THE PRODUCTION AND DISTRIBUTION OF ALL FORMS OF ENERGY NEEDED FOR THE NATIONAL ECONOMY, WHETHER COAL, GAS, PETROLEUM, HYDRO, OR NUCLEAR POWER. THE MINISTRY HAS DIRECT CONTROL OVER THE BULK OF ENERGY R&D PERFORMED IN POLAND, AND COORDINATES APPLIED ENERGY-RELATED RESEARCH PERFORMED BY THE NUCLEAR-ENERGY AUTHORITY, THE POLISH ACADEMY OF SCIENCES, OTHER MINISTRIES, AND THE UNIVERSITIES.

OVERALL ENERGY POLICY IS FORMULATED WITHIN THE MINISTRY IN THE INSPECTORATE FOR FUELS AND ENERGY (PIGPE), WHOSE DIRECTOR, ZYGMUNT NEUMANN, REPORTS DIRECTLY TO MINISTER JAN KULPINSKI. ADDITIONAL LONG-RANGE POLICY STUDIES ARE PERFORMED BY THE COMMISSION ON RESOURCES AND POWER OF THE "POLAND 2000 COMMITTEE FOR RESEARCH AND FORECAST" AND THE LIMITED OFFICIAL USE

LIMITED OFFICIAL USE

PAGE 02 WARSAW 00216 02 OF 04 140856Z

"COMMITTEE FOR THE PROBLEMS OF THE POWER INDUSTRY OF THE POLISH ACADEMY OF SCIENCES." BOTH OF THESE GROUPS ARE CHAIRED BY DR. KAZIMIERZ KOPECKI OF THE GDANSK TECHNICAL UNIVERSITY.

ENERGY-RESEACH AND DEVELOPMENT POLICY WITHIN THE MINISTRY OF MINING AND POWER IS DIRECTED BY VICE-MINISTER BENON STRANZ, WHO IS ALSO RESPONSIBLE FOR THE INTERNATIONAL ACTIVITIES OF THE MINISTRY. IN THIS CAPACITY, STRANZ CAN CALL ON THE RESEARCH CAPABILITIES OF THE RESEARCH INSTITUTES WITHIN THE MINISTRY OR IN THE THREE LARGE INDUSTRIAL ASSOCIATIONS (COAL, PETROLEUM AND GAS, AND POWER) DIRECTLY SUBORDINATE TO IT. ON ENERGY MATTERS, STRANZ'S OFFICE ALSO PASSES ENERGY R&D CONTRACTS TO OTHER MINISTRIES, FOR EXAMPLE, THE NUCLEAR ENERGY AUTHORITY FOR COAL-FIRED MHD ELECTRIC-POWER GENERATION.

THE ATOMIC ENERGY AUTHORITY HAS RESPONSIBILITY FOR NUCLEAR R&D THROUGHOUT POLAND AND IS WORKING CLOSELY WITH THE MINISTRY OF MINING AND POWER ON THE DESIGN, INSTALLATION, AND EVENTUAL

OPERATION OF NUCLEAR-POWER PLANTS. THE MINISTRY OF MINING AND POWER WILL BE THE SOLE INVESTOR IN NUCLEAR-POWER PLANTS AND IS THUS ULTIMATELY RESPONSIBLE FOR THEIR EFFICIENT CONSTRUCTION AND OPERATION. THE NUCLEAR ENERGY AUTHORITY IS HEADED BY DR. JAN FELICKI. LECH TYMINSKI IS THE FIRST VICE PRESIDENT AND DR. MIECZYSLAW SOWINSKI IS THE SECOND VICE PRESIDENT.

THE STATE PLANNING COMMISSION, AN AGENCY OF THE COUNCIL OF MINISTERS, SUPERVISES THE OVERALL BUDGET AND ALL LARGE INVESTMENT PROPOSALS OF THE MINISTRY OF MINING AND POWER. THE OFFICIAL IN CHARGE OF ENERGY MATTERS WITHIN THE STATE PLANNING COMMISSION IS N. MUSZKET. THE COMMISSION ARBITRATES, AS NECESSARY, PROBLEMS ARISING BETWEEN THE MINISTRY OF MINING AND POWER AND OTHER CONCERNED MINISTRIES (E.G., THE MINISTRY OF ADMINISTRATION AND ENVIRONMENTAL PROTECTION IS CONCERNED WITH THE SITING OF POWER PLANTS, AND THE MINISTRY OF FOREIGN TRADE HAS OVERALL RESPONSIBILITY FOR FUEL IMPORT AND EXPORT PLANS).

D. R&D - PRIORITIES AND ACTIVITIES - POLAND'S BASIC STRATEGY
LIMITED OFFICIAL USE

LIMITED OFFICIAL USE

PAGE 03 WARSAW 00216 02 OF 04 140856Z

FOR SOLVING ENERGY R&D PROBLEMS IS SIMILAR TO THAT TAKEN IN OTHER AREAS, I.E., ATTEMPT TO PURCHASE PROVEN ADVANCED TECHNOLOGY, PREFERABLY FROM THE WEST, WHILE AT THE SAME TIME DEVELOPING A DOMESTIC R&D CAPABILITY FOR IMPROVING AND ADAPTING IMPORTED TECHNOLOGY. HOWEVER, POLISH ENERGY R&D IS BY NO MEANS COMPLETELY DERIVATIVE; POLAND HAS ACHIEVED A STRONG CAPABILITY AND IS EXPORTING TECHNOLOGY IN SUCH AREAS AS LONG-WALL MINING TECHNIQUES, COAL-MINE PLANNING, CONSTRUCTION, AND AUTOMATION. IT IS ALSO BECOMING INCREASINGLY COMPETENT IN VARIOUS ASPECTS OF COAL CONVERSION AND THE ENVIRONMENTAL PROBLEMS ASSOCIATED WITH COAL MINING AND USE. FOLLOWING IS THE EMBASSY'S ESTIMATION OF THE MAJOR ENERGY R&D CONCERNS IN POLAND AT PRESENT:

1)COAL TRANSFORMATION - PERHAPS THE HIGHEST IMMEDIATE ENERGY R&D PRIORITY IS THE CONVERSION OF COAL TO SYNTHETIC GAS AND LIQUID FUELS. SUCCESSFUL DEVELOPMENT IN THIS AREA WILL ENABLE POLAND TO REDUCE ITS PETROLEUM AND GAS IMPORTS AND PERMIT EXPLOITATION OF LARGE, READILY AVAILABLE DEPOSITS OF HIGH SULPHUR AND HIGH ASH COAL WHICH NOW CANNOT BE PROFITABLY EXPORTED OR USED DOMESTICALLY. A FIRM DECISION HAS BEEN TAKEN TO BEGIN CONSTRUCTION OF TWO COAL-GASIFICATION PLANTS WITHIN THE CURRENT FIVE-YEAR PLAN (1976-1980) WITH A COMBINED ANNUAL CAPACITY OF 3 MILLION TONS. BIDS FROM THE U.S. (KOPPERS CORPORATION OF PITTSBURGH), THE U.K., FRANCE, AND THE FRG ARE REPORTEDLY UNDER CONSIDERATION. THE PLANTS WILL PRODUCE SYNTHETIC GAS FOR INDUSTRIAL POWER AND HOME

HEATING AS WELL AS FEEDSTOCK FOR POLAND'S GROWING CHEMICAL INDUSTRY. WHILE LIQUEFACTION IS ALSO A HIGH PRIORITY, EXPERTS HERE BELIEVE THERE IS NO PROVEN TECHNOLOGY AVAILABLE THAT CAN BE USED FOR THE IMMEDIATE CONSTRUCTION OF INDUSTRIAL-SCALE PLANTS. POLAND WILL CONTINUE TO SEARCH FOR AN APPROPRIATE LICENSING OPPORTUNITY WHILE CONCOMITANTLY STEPPING UP DOMESTIC LIQUEFACTION R&D. THE FOCUS OF POLISH WORK IN THIS FIELD IS THE PILOT PLANT AT WYRY OPERATED BY THE INSTITUTE OF CARBO-CHEMISTRY. A CONSIDERABLY ENLARGED SECOND STAGE OF THE PILOT PLANT BEGAN OPERATION THIS MONTH FOR RESEACH ON SOLVENT-REFINING METHODS OF COAL LIQUEFACTION.

2) COAL-MINING TECHNOLOGY - POLAND MUST CONTINUE A STRONG LIMITED OFFICIAL USE

LIMITED OFFICIAL USE

PAGE 04 WARSAW 00216 02 OF 04 140856Z

EXPANSION OF COAL PRODUCTION AND HAS INVESTED HEAVILY IN R&D TO IMPROVE MINE EFFICIENCY

LIMITED OFFICIAL USE

NNN

LIMITED OFFICIAL USE

PAGE 01 WARSAW 00216 03 OF 04 140906Z

12

ACTION ERDA-07

INFO OCT-01 EUR-12 ISO-00 FEA-01 AID-05 CEA-01 CIAE-00

CIEP-01 COME-00 DODE-00 EB-07 FPC-01 H-02 INR-07

INT-05 L-03 NSAE-00 NSC-05 OMB-01 PM-04 USIA-06

SAM-01 OES-03 SP-02 SS-15 STR-04 TRSE-00 CEQ-01 EPA-01

SAJ-01 AGR-05 DOTE-00 SIL-01 LAB-04 IO-11 NSF-01

NRC-05 /124 W

----- 089284

R 140720Z JAN 76

FM AMEMBASSY WARSAW

TO SECSTATE WASHDC 9299

INFO AMEMBASSY MOSCOW

AMEMBASSY PRAGUE
AMEMBASSY BUCHAREST
AMEMBASSY BELGRADE

LIMITED OFFICIAL USE WARSAW SECTION 3 OF 4 WARSAW 0216

AND SAFETY. MAJOR RESEARCH THEMES INCLUDE LONG-WALL MINING AND MINE AUTOMATION, CONTROLLED. SUBSIDENCE, MINING GEOLOGY, ROCK STRESSES, OT-GASSING OF MINES, AND MINING HYDROLOGY. THE FOCUSE OF MINING TECHNOLOGY AND RESEARCH IS THE CENTRAL MINING INSTITUTE IN KATOWICE, DIRECTOR, ADAM SZCZUROWSKI. THERE IS A REPORTED SHORTAGE OF 40,000 COAL MINERS AND THERE IS INCREASING DIFFICULTY IN RECURITING NEW PERSONNEL FOR UNDERGOURND WORK. POLAND LOOKS TOWARD EXTENSIVE MINE AUTOMATION AS A SOLUTION TO ITS LABOR SHORTAGE, AND SHOULD CONTINUE TO INVEST HEAVILY IN SUCH PROJECTS AS THE "JAN" MINE NEAR KATOWICE, WHICH THE POLES CLAIM TO BE THE MOST FULLY AUTOMATED MINE IN THE WORLD. THERE WILL BE INCREASING EMPHASIS ON ENVIRONMENTAL

LIMITED OFFICIAL USE

LIMITED OFFICIAL USE

PAGE 02 WARSAW 00216 03 OF 04 140906Z

PROBLEMS RELATED TO COAL MINING, WITH CONTINUATION OF LARGE PROJECTS IN SUCH AREAS A MINE DRAINAGE, RECLAMATION OF OPEN-CAST MINES, REVEGETATION OF SPOIL-STACK, AND THE ECONOMIC EXPLOITATION OF VARIOUS RESIDUES, SUCH AS FLY-ASH.

3) NUCLEAR POWER

PRESENT PLANS CALL FOR THE CONSTRUCTION OF ONE SOVIET 440-MWH PRESSURIZED WATER REACTOR AT WEJHEROWO NEAR GDANSK, WITH AN OPERATIONAL TARGET DATE OF 1982. THIS REPORTEDLY WILL BE FOLLOWED BY THREE SIMILAR SOVIET REACTORS TO BE LOCATED EITHER ON THE BALTIC COAST OR IN THE MOUTH OF THE VISTUAL. FOLLOWING THESE DEVELOPMENTS, POLISH PLANS FOR NUCLEAR-POWER EXPANSION ARE LESS SPECIFIC, BUT REPORTEDLY WILL INCLUDE THE CONSTRUCTION OF A 1,000-NW POWER PLANT, OF UNDETERMINED DESIGN, IN CONJUNCTION WITH A PUMPED-WATER STORAGE INSTALLATION FOR POWER-LEVELING. LON-RANGE PLANS CALL FOR THE INSTALLATION OF 35,000-MW OF NUCLEAR-ELECTRIC POWER IN POLAND DURING THE NEXT 25 YEARS. SINCE ONLY SCARCE FRES-WATER RESOURCES ARE AVAILABLE FOR COOLING, MANY OF THESE PLANTS WILL BE LOCATED ON OR NEAR THE BALTIC COAST. POLAND ALSO HAS STRONG INTEREST IN THE DEVELOPMENT OF HIGH-TEMPERATURE REACTORS AS THE PRIME ENERGY

SOURCE FOR GASIFICATION AND OTHER CHEMICAL PROCESSES. A MODERATE-SIZED PROGRAM OF FUSION RESEARCH, BASED ON THE APPLICATION OF HIGH-POWER LASERS TO A PLASMA PINCH - EFFECT DEVICE, IS EXPECTED TO CONTINUE UNDER THE DIRECTION OF DR. MICHAL GRYZINSKI AT THE SWIERK RESEARCH INSTITUTE OF THE NUCLEAR ENERGY AUTHORITY. GRYZINSKI'S GROUP HAS REPORTEDLY OBTAINED NEUTRONS IN EXPERIMENTS CONDUCTED THUS FAR.

4) ELECTRIC-POWER PRODUCTION AND TRANSMISSION

R&D ON THE DESIGN AND PRODUCTION OF LARGE-SCALE (2000-MW) POWER-GENERATING EQUIPMENT AND HIGH-VOLTAGE TRANSMISSION LINES IS EXPECTED TO CONTINUE STRONGLY, WITH THE GOAL OF FILLING ALL OF POLAND'S NEEDS LIMITED OFFICIAL USE

LIMITED OFFICIAL USE

PAGE 03 WARSAW 00216 03 OF 04 140906Z

DOMESTICALLY, AND TO PROVIDE AN EXPORT CAPABILITY. RESEARCH ON THE DESIGN OF TOWERS AND CABLES FOR A PLANNED 40-KV CEMA ELECTRIC-POWER GRID IS PROCEEDING AT THE POWER INSTITUTE OF THE MINISTRY OF MINING AND POWER UNDER THE HIGHLY COMPETENT DIRECTION OF PROFESSOR MAREK JACZEWSKI.

5. MHD

A NATIONAL MHD RESEARCH PROGRAM UNDER THE DIRECTION OF PROFESSOR WOJCIECH BRZOZOWSKI, HEAD OF THE PLASMA PHYSICS DEPARTMENT AT SWIERK, IS PROCEEDING WITH GOOD RESULTS. THIS WORK HAS CONCENTRATED ON THE DEVELOPMENT OF CERAMIC-SPRAYED TUNGSTEN ELECTRODES FOR THE GENERATOR AND RESEARCH ON SEEDED-PLASMA FLOW. AN ENLARGED MHD GENERATOR WILL GO INTO OPERATION AT SWIERK THIS YEAR, TO BE ADAPTED FOR COAL-FIRED OPERATION. RESEARCH ON THE PRODUCTION OF CLEAN GASS FROM COAL FOR MHD POWER IS SUPPORTED BY THE MINISTRY OF MINING AND POWER.

6) OUTLOOK FOR ENERGY R&D ACTIVITIES AND PROGRAMS

POLAND'S AMBITIOUS PLANS FOR RAPID MODERNIZATION OF ITS ENERGY BASE PRESENT SOME LARGE UNKNOWNNS. THE PLANNED IMMEDIATE INTRODUCTION OF INDUSTRIAL-SCALE COAL-GASIFICATION PLANTS UNDER FOREIGN LICENSE, RAISES BOTH TECHNICAL AND FINANCIAL QUESTIONS. CAUGHT IN A FOREIGN-CURRENCY SQUEEZE, IT IS NOT CLEAR HOW POLAND WILL RAISE THE OVER ON-HALF BILLION DOLLARS IN FOREIGN CURRENCY WHICH THIS INVESTMENT IS ESTIMATED TO COST. POLISH SCIENTISTS AND ENGINEERS HAVE RELATIVELY LITTLE EXPERIENCE WITH INDUSTRIAL-SCALE COAL

CONVERSION, AND THE ENVIRONMENTAL PROBLEMS ASSOCIATED WITH SUCH PLANTS STILL REMAIN TO BE THOROUGHLY RESEARCHED. EVENTUALLY, THE POLES HOPE TO PAY FOR THE PLANTS THROUGH THE SALE OF CONVERSION-END PRODUCTS WHICH, AS SOME HAVE POINTED OUT HERE, WILL BE ANOTHER MORTGAGE ON THE NATION'S ENERGY INDEPENDENCE. THE NUCLEAR-POWER PROGRAM HAS ALREADY SLIPPED TWO YEARS BEHIND SCHEDULE, AND A NUMBER OF EXPERTS PRILIMITED OFFICIAL USE

LIMITED OFFICIAL USE

PAGE 04 WARSAW 00216 03 OF 04 140906Z

VATELY INDICATE THEY ARE NOT HAPPY WITH THE SOVIET REACTORS. AMONG OTHER SHORTCOMINGS, IT APPEARS THESE REACTORS WERE DESIGNED FOR SUB-ARCTIC USE WITH COOLING WATER TEMPERATURES APPROXIMATELY 10 DEGREES LOWER THAN THE WATERS OFF THE POLISH BALTIC COAST; THIS WILL GREATLY REDUCE THE EFFICIENCY OF THE REACTORS AND MAY REQUIRE EXTENSIVE RE-DESIGN. WHILE THE POLES ARE APPARENTLY LOCKED INTO THE PURCHASE OF AT LEAST TWO SOVIET PRESSURIZED WATER REACTORS, THEY HAVE INDICATED AN INCREASING INTEREST IN THE EVENTUAL PURCHASE, AND PERHAPS CO-PRODUCTION, OF WESTERN NUCLEAR-POWER PLANTS.

LIMITED OFFICIAL USE

NNN

LIMITED OFFICIAL USE

PAGE 01 WARSAW 00216 04 OF 04 140914Z

12

ACTION ERDA-07

INFO OCT-01 EUR-12 ISO-00 FEA-01 AID-05 CEA-01 CIAE-00

CIEP-01 COME-00 DODE-00 EB-07 FPC-01 H-02 INR-07

INT-05 L-03 NSAE-00 NSC-05 OMB-01 PM-04 USIA-06

SAM-01 OES-03 SP-02 SS-15 STR-04 TRSE-00 CEQ-01 EPA-01

SAJ-01 AGR-05 DOTE-00 SIL-01 LAB-04 IO-11 NSF-01

NRC-05 /124 W

----- 089390

R 140720Z JAN 76
FM AMEMBASSY WARSAW
TO SECSTATE WASHDC 9300
INFO AMEMBASSY MOSCOW
AMEMBASSY PRAGUE
AMEMBASSY BUCHAREST
AMEMBASSY BELGRADE

LIMITED OFFICIAL USE SECTION 4 OF 4 WARSAW 0216

WHILE POLISH PARTICIPATION IN THE SOVIET ORENBURG AND POLOTSK
NATURAL-GAS PIPELINE PROJECTS RECEIVE WIDE
PUBLICITY AND ACCLAIM IN THE PRESS, THE POLES
PRIVATELY EXPRESS CONCERN ABOUT POSSIBLE DELAYS
AND MISMANAGEMENT OF THESE PROJECTS. AS THE PRESENT
HIGH EMPHASIS ON COAL GASIFICATION REVEALS, POLAND
IS NOT ENTIRELY CONFIDENT THAT SOVIET SUPPLIES WILL BE
THE MAJOR ANSWER TO NATIONAL GASEOUS-FUEL
SHORTAGES.

NEVERTHELESS, THE POLISH ENERGY OUTLOOK IS NOT ENTIRELY
BLEAK. VAST RESOURCES OF HIGH-QUALITY COAL AND A
HIGHLY COMPETENT COAL-MINING AND PROCESSING TECH-
NOLOGY, WILL PROVIDE A CUSHION AGAINST THE VAGARIES
OF IMPORTED TECHNOLOGY AND FLUCTUATIONS IN WORLD FUEL
PRICES, HOWEVER, ANY MAJOR SETBACK IN THE
LIMITED OFFICIAL USE

LIMITED OFFICIAL USE

PAGE 02 WARSAW 00216 04 OF 04 140914Z

COAL-CONVERSION OF NUCLEAR-POWER PLANT DEVELOPMENT MIGHT WILL
LIMITE POLISH INDUSTRIAL AND AGRICULTURAL MODERNIZATION
AMBITIONS.

7) INTERNATIONAL ACTIVITIES

POLAND HAS FAIRLY SUBSTANTIAL ENERGY R&D COOPERATIVE
ARRANGEMENTS, BOTH EAST AND WEST. POLAND HAS BILATERAL
AGREEMENTS WITH THE U.K. COAL BOARD, THE FRG, AND THE
U.S. ON COAL MINING AND PROCESSING. POLAND ALSO HAS
BILATERAL AGREEMENTS ON COAL RESEARCH WITH THE SOVIET
UNION AND GDR, AND A NUMBER OF MULTILATERAL AGREE-
MENTS WITHIN THE CEMA CONTEXT. THIS INCLUDES A CENTER
IN KATOWICE FOR THE COORDINATION OF COAL UTILIZATION
METHODS, WHICH REPORTEDLY COORDINATES THE ACTIVITIES
OF TWENTY-FIVE INSTITUTES WITHIN CEMA COUNTRIES ON
THIS SUBJECT. POLAND IS ALSO A PARTICIPANT IN
"INTERATOMENEROG", A CEMA ENTITY CONCERNED WITH
THE PRODUCTION OF NUCLEAR-POWER EQUIPMENT.
POLAND IS AN ACTIVE PARTICIPANT IN A NUMBER OF
INTERNATIONAL COAL-RELATED ORGANIZATIONS, AND IS
SENDING A LARGE DELEGATION, HEADED BY VICE MINISTER

STRANZ TO THE COAL-CONVERSION SYMPOSIUM IN DUESSELDORF THIS MONTH
POLISH REPRESENTATIVES ARE ALSO REPORTED TO BE ACTIVE IN UNITED
NATIONS ENERGY-RELATED ACTIVITIES.

2. LIST OF ENERGY OFFICIAL WITH INTERNATIONAL RESPONSIBILITIES

A. JAN KULPINSKI - MINISTER OF MINING AND PWER. KULPINSKI
HAS A DEGREE IN MINING ENGINEERING AHD HAS BEEN A
DIRECTOR OF A MINE AND THE BYTOM COAL ASSOCIATION.
WHILE HE HAS LESS NATIONAL STATURE THAN HIS PREDCESSOR,
JAN MITREGA, WHO WAS ALSO A VICE-PREMIER, KULPINSKI
IS APPARENTLY WELL-LIKE WITHIN THE MINISTRY AND
INFLUENTILA IN PZPR CIRCLES. HE VISITED THE
U.S. ONCE IN 1972, AND IS EXPECTED TO TOUR THE U.S.
AGAIN, THIS YEAR, UNDER THE INTERNATIONAL VISITORS
PROGRAM. NO ENGLISH.

B. BENON STRANZ - VICE MINISTER OF MINING AND POWER.
LIMITED OFFICIAL USE

LIMITED OFFICIAL USE

PAGE 03 WARSAW 00216 04 OF 04 140914Z

STRANZ IS RESPONSIBLE WITHIN THE MINISTRY FOR ENERGY
R&D AND INTERNATIONAL ACTIVITIES. HE HOLDS A
DOCTOR'S DEGREE IN MINING ENGINEERING, AND WAS
FORMERLY HEAD OF THE CENTRAL MINING INSTITUTE IN
KATOWICE. HE VISITED THE U.S. IN 1975. A FORCEFUL
ADMINISTRATOR, STRANZ IS REPORTEDLY THE MOVING
SPIRIT BEHIND THE DECISION FOR THE IMMEDIATE
DEVELOPMENT OF INDUSTRIAL-SCALE GASIFICATION
PLANTS IN POLAND. NON ENGLISH.

C. JERZY SKWARA - DIRECTOR FOR FOREIGN COOPERATION IN THE
MINISTRY OF MINING AND POWER. A RECENT APPOINT-
METN, SKWARA FORMERLY HELD THE POSITION OF CHEF DE
CABINET TO MINISTER KULPINSKI. HE HOLDS A GRADUATE
DEGREE IN ECONOMICS. JUDGING FROM RECENT CONTACTS
WITH THE EMBASSY, SKWARA APPARENTLY WISHES TO CONTINUE
AND EXPAND CLOSE U.S.-POLISH RELATIONS IN ENERGY
RESEARCH. NO ENGLISH.

D. JERZY KAHANEK - DEPARTMENT OF FOREIGN COOPERATION,
MINISTRY OF MINING AND POWER. KAHANEK, WHO HOLDS A
ENGINEERING DEGREE, WAS FORMERLY EMPLOYED IN THE
PETROLEUM ASSOCIATION UNDER THE MINISTRY. HE SPENT
ONE YEAR IN THE U.S. UNDER A UNDP GRANT. BECAUSE
OF HES EXCELLENT COMMAND OF ENGLISH, KAHANEK HAS
BE ASSIGNED AS THE COORDINATOR FOR U.S.
COOPERATION WITHIN THE MINISTRY.

E. JANUSZ BROZYNA - DIRECTOR FOR INTERNATIONAL RELATIONS,

POLISH NUCLEAR ENERGY AUTHORITY. BROZYNA HOLDS A
DEGREE IN ELECTRONICS ENGINEERING, AND COMES TO
HIS PRESENT POSITION AFTER EXTENSIVE EXPERIENCE IN
IN THE ELECTRONICS INDUSTRY. HE IS ATTEMPTING TO
DEVELOP STRONGER CONTACTS WITH THE WEST IN NUCLEAR
R&D, AND IS ORGANIZING A TEAM VISIT TO THE U.S. THIS HEARD
FROM THE NUCLEAR ENERGY AUTHORITY. BROZYNA SPEAKS FAIR
ENGLISH AND EXCELLENT FRENCH.
DAVIES

LIMITED OFFICIAL USE

NNN

Message Attributes

Automatic Decaptioning: X
Capture Date: 01 JAN 1994
Channel Indicators: n/a
Current Classification: UNCLASSIFIED
Concepts: ENERGY, POLICIES, PROGRAMS (PROJECTS)
Control Number: n/a
Copy: SINGLE
Draft Date: 14 JAN 1976
Decaption Date: 01 JAN 1960
Decaption Note:
Disposition Action: RELEASED
Disposition Approved on Date:
Disposition Authority: morefirh
Disposition Case Number: n/a
Disposition Comment: 25 YEAR REVIEW
Disposition Date: 28 MAY 2004
Disposition Event:
Disposition History: n/a
Disposition Reason:
Disposition Remarks:
Document Number: 1976WARSAW00216
Document Source: CORE
Document Unique ID: 00
Drafter: n/a
Enclosure: n/a
Executive Order: N/A
Errors: N/A
Film Number: D760013-0560
From: WARSAW
Handling Restrictions: n/a
Image Path:
ISecure: 1
Legacy Key: link1976/newtext/t19760156/aaaabxwa.tel
Line Count: 610
Locator: TEXT ON-LINE, ON MICROFILM
Office: ACTION ERDA
Original Classification: LIMITED OFFICIAL USE
Original Handling Restrictions: n/a
Original Previous Classification: n/a
Original Previous Handling Restrictions: n/a
Page Count: 12
Previous Channel Indicators: n/a
Previous Classification: LIMITED OFFICIAL USE
Previous Handling Restrictions: n/a
Reference: 76 STATE 289786
Review Action: RELEASED, APPROVED
Review Authority: morefirh
Review Comment: n/a
Review Content Flags:
Review Date: 14 APR 2004
Review Event:
Review Exemptions: n/a
Review History: RELEASED <14 APR 2004 by SmithRJ>; APPROVED <20 APR 2004 by morefirh>
Review Markings:

Margaret P. Grafeld
Declassified/Released
US Department of State
EO Systematic Review
04 MAY 2006

Review Media Identifier:
Review Referrals: n/a
Review Release Date: n/a
Review Release Event: n/a
Review Transfer Date:
Review Withdrawn Fields: n/a
Secure: OPEN
Status: NATIVE
Subject: POLISH ENERGY PRIORITIES AND PROGRAMS
TAGS: TECH
To: STATE
Type: TE
Markings: Margaret P. Grafeld Declassified/Released US Department of State EO Systematic Review 04 MAY 2006